

**IN THE SPECIFICATION**

**Please amend the paragraph on page 6, lines 3-17 as follows:**

During reception, a radio receiver 13 subjects a high-frequency signal received from an antenna ANT<sub>R</sub> to a frequency conversion (RF → IF conversion) to obtain a baseband signal, subjects the baseband signal to quadrature detection to generate in-phase component (I component) data and quadrature component (Q component) data, applies an analog-to-digital conversion and inputs the digital data to a despreading demodulator 14. The latter applies despread processing to the I- and Q- component signals using a code identical with that of the spreading code, demodulates (synchronously detects) the transmitted encoded data and inputs the data to a demultiplexer 15. As shown in Fig. 22, the following encoded data that has been multiplexed is input to the demultiplexer 15:

**Please amend the paragraph on page 43, line 14 to page 44, line 9 as follows:**

Fig. 8 is a diagram useful in describing an overview of the functions of the channel codec 60 (Fig. 5) in the mobile station of a W-CDMA system. Data from the data selector 52 on the side of the higher-order application enters a channel codec 60a on the transmitting side. The channel codec 60a on the transmitting side adds a CRC bit onto the data (step 101) and then inputs the data to a convolutional encoder or turbo encoder depending upon the type of data, thereby encoding the data (step 102). The channel codec 60a then subjects the encoded data to first interleave processing (step 103) and subsequently performs a data compression/decompression operation in a rate matching unit (step 104). The channel codec 60a partitions the rate-matched encoded data at the transmission time interval (TTI), multiplexes the data in a specified order with the encoded data of other transport channels (TrCHs) and sends the

multiplexed data to the physical channel (step 105). The channel codec 60a subjects this multiplexed data to second interleave processing and transfers the resulting data to a MOD 80a (step 106). The latter executes QPSK spreading and QPSK modulation, and a radio unit ~~80b~~ (TX) effects a conversion to an RF signal and transmits the RF signal from an antenna.

**Please amend the paragraph on page 44, line 10 to page 45, line 3 as follows:**

At reception, a radio unit ~~90a~~ (RX) makes a conversion from an RF signal to a baseband signal, and a DEM unit 90b performs QPSK demodulation and QPSK despreading / RAKE synthesis to thereby demodulate the receive data. The demodulated data is input to a channel codec 60b on the receiving side. The channel codec 60b on the receiving side subjects the received demultiplexed data to second deinterleave processing (step 107), then demultiplexes the multiplexed data on a per-transport-channel basis and joins the demultiplexed data on a per-transport-channel basis (step 108). The channel codec 60b on the receiving side thenceforth subjects the receive data to first deinterleave processing on a per-transport-channel basis (step 109) and subsequently performs a data compression/decompression operation in a rate matching unit (step 110). The channel codec 60b on the receiving side then subjects the rate-matched data (encoded data) to convolutional decoding processing or turbo ~~encoding~~ decoding processing to thereby decode the data (step 111), subjects the decoded data to a CRC check (step 112) and sends the results to the side of the higher-order application.

**Please amend the paragraph on page 45, line 12 to page 46, line 3 as follows:**

The demultiplexer 65 in the codec on the receiving side receives physical-channel data (multiplexed data) and a TFCI code word from the DEM 90b. A second deinterleaver 65a

subjects the received physical-channel data to second deinterleave processing and retains the result in a receive-data holding buffer 65b. The buffer 65b requires an area capable of holding data at least in an amount commensurate with the longest transmission time interval (TTI) (= 80 ms). A TFCI decoding ~~processor~~ processor/TFI discrimination unit 31 of a TFI decision unit 65c finds a TFCI by decoding, frame by frame, the TFCI code word received at the same time as the multiplexed data, refers to a TFCI table and detects the TFIs of each of the transport channels (TrCHs) frame by frame. A TFI/likelihood holding unit 32 holds the TFI of every frame of each TrCH and likelihood calculated at the time of TFCI decoding and uses these in TFI error detection and correction processing. This data also is necessary to be retained in an amount commensurate with the longest transmission time interval (TTI).